

Application No. 10/755,857
Filed: January 12, 2004
TC Art Unit: 3627
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AMENDMENT TO THE CLAIMS

1. (Canceled)

2. (new) A data acceleration system enabling accelerated provision of event-characterizing information for an event initiated in a wireless telecommunications system with respect to a roaming customer of a home wireless service provider, the wireless telecommunications system comprising a serving switch associated with a serving carrier for receiving an event initiation command and an event termination command, the data acceleration system comprising:

an event manager, independent of the serving switch and associated with the home service provider, for responding to the event initiation command by initiating the accumulation of data characterizing the event, for responding to an event termination command by terminating the accumulation of data characterizing the event, and for transmitting the accumulated event characterizing data;

a customer account manager of the home service provider in communication with the event manager for receiving the accumulated event characterizing data; and

a customer database associated with the customer account manager for maintaining customer account records of the home service provider,

wherein the customer account manager is adapted for modifying the respective customer account record in the customer database on the basis of the accumulated event characterizing data.

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3. (New) The system of claim 2, wherein the event manager is further adapted for transmitting the event characterizing data to the customer account manager in batches at a frequency of less than twenty-four hours.

4. (New) The system of claim 2, wherein the event manager is further adapted for transmitting the event characterizing data to the customer account manager immediately upon termination of the event.

5. (New) The system of claim 2, wherein the event manager is adapted to receive the event initiation command and event termination command from the serving switch.

6. (New) The system of claim 2, wherein the event manager is adapted to detect the event initiation command and the event termination command independent of the serving switch.

7. (New) The system of claim 2, wherein the accumulated event characterizing data transmitted by the event manager is substantially duplicative of event characterizing data accumulated and transmitted by the serving switch.

8. (New) The system of claim 7, further comprising a filter in communication with the customer account manager for preventing delivery of accumulated event characterizing data transmitted by the serving switch and intended for receipt by the customer account manager if the event manager has already transmitted

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accumulated event characterizing data to the customer account manager.

9. (New) A method of accelerating the reporting of roaming event-characterizing data in a telecommunications network, comprising:

detecting event initiation and termination commands at a serving switch within the telecommunications network with respect to a roaming customer of a home service provider;

detecting the event initiation and termination commands at an event manager associated with the home service provider;

initiating and terminating the event by the serving switch in response to the event initiation and termination commands;

accumulating event-characterizing data by each of the event manager and the serving switch during the event;

forwarding the accumulated event-characterizing data, by the event manager, to a customer account manager associated with the home service provider after event termination; and

forwarding the accumulated event-characterizing data, by the serving carrier, to the customer account manager after event termination,

whereby the step of forwarding the accumulated event-characterizing data by the serving carrier occurs subsequent to receipt of the event-characterizing data from the event manager at the customer account manager.

10. (New) The method of claim 9, further comprising the steps of:

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rating the event by the customer account manager upon receipt of the accumulated event-characterizing data from the event manager; and

updating customer-specific account characteristics in a customer database by the customer account manager on the basis of the accumulated event-characterizing data from the event manager.

11. (New) The method of claim 9, wherein the step of forwarding the event-characterizing data from the event manager comprises forwarding the event-characterizing data in batches.

12. (New) The method of claim 9, wherein the step of forwarding the event-characterizing data from the event manager comprises forwarding the event-characterizing data immediately upon event termination.

13. (New) The method of claim 9, further comprising the step of preventing the serving switch event-characterizing data from reaching the customer account manager if the event manager event-characterizing data has already been received by the customer account manager.

14. (New) The method of claim 13, wherein the step of preventing further comprises storing the serving switch event-characterizing data for purposes other than for customer account management.

15. (New) A system for enabling the selective use of real-time event control resources in a telecommunications system, comprising:

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a subscriber database comprised of individual subscriber records, each providing data relevant to the respective subscriber account;

a balance manager in communication with the subscriber database for receiving data characterizing events chargeable to a subscriber, for rating the received event characterizing data according to rating data from the subscriber database, for modifying the respective subscriber record in the subscriber database on the basis of the rated data, and for providing subscriber record data upon request;

a treatment handler in communication with the balance manager for determining whether a subscriber is subject to pre-event processing before and real-time monitoring during an event or whether a subscriber is subject to post-event monitoring; and

an event manager in communication with the balance manager and the treatment handler for selectively authorizing an event subject to pre-event processing before and real-time monitoring during an event or subject to post-event monitoring.

16. (New) The system of claim 15, wherein the subscriber database, balance manager, event manager, and treatment handler are adapted to perform post-event monitoring through receiving event-characterizing data by the balance manager subsequent to event termination, rating the event-characterizing data upon receipt at the balance manager, modifying the respective subscriber record in the subscriber database by the balance manager on the basis of the rated event-characterizing data, and subsequently analyzing the modified subscriber record by the treatment handler.

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17. (New) The system of claim 16, wherein the treatment handler is further adapted to perform post-event monitoring through analysis of the modified subscriber record with respect to predefined business rules stored in conjunction with the treatment handler.

18. (New) The system of claim 17, wherein the treatment handler is further adapted to perform post-event monitoring by determining whether further events chargeable to the respective subscriber record are subject to post-event monitoring or are subject to pre-event processing and real-time monitoring.

19. (New) The system of claim 15, wherein the subscriber database, balance manager and event manager are adapted to perform pre-event processing and real-time monitoring through the provision of subscriber record data from the subscriber database to the event manager via the balance manager and the accumulation of event-characterizing data by the event manager during the event.

20. (New) The system of claim 19, wherein the balance manager and event manager are further adapted to perform pre-event processing and real-time monitoring through the provision of accumulated event-characterizing data from the event manager to the balance manager subsequent to the event.

21. (New) The system of claim 20, wherein the balance manager and subscriber database are further adapted to rate the event-

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characterizing data upon receipt at the balance manager and to modify the respective subscriber record in the subscriber database on the basis of the rated event-characterizing data for subscribers subject to pre-event processing and real-time monitoring.

22. (New) The system of claim 15, wherein the treatment handler is adapted to determine whether to authorize a subscriber-requested event subject to pre-event processing before and real-time monitoring during an event or subject to post-event monitoring on the basis of one or more metrics selected from the group consisting of cash balance, credit balance, debt balance, applicable rate plan, home or roaming status, payments due, and credit rating.

23. (New) The system of claim 15, wherein the treatment handler is further adapted to perform post-event monitoring through the establishment of a treatment identifier which, when analyzed by the event manager upon receipt of a subsequent event initiation request, identifies whether the respective subscriber is subject to post-call monitoring or pre-call processing and real-time monitoring.

24. (New) The system of claim 15, further comprising a payment portal associated with the balance manager for enabling real-time modification of a subscriber account.

25. (New) The system of claim 24, wherein the balance manager is responsive to a modification of a subscriber account in the

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subscriber database, initiated by the payment portal, by sending a signal to the treatment handler.

26. (New) The system of claim 25, wherein the treatment handler is responsive to receipt of the signal from the balance manager by analyzing the modified subscriber record with respect to predefined business rules stored in conjunction with the treatment handler.

27. (New) The system of claim 26, wherein the treatment handler analysis of the modified subscriber record is for determining whether further events chargeable to the respective subscriber record are subject to post-event monitoring or are subject to pre-event processing and real-time monitoring.

28. (New) The system of claim 15, wherein the treatment handler is further adapted to perform pre-event processing and real-time monitoring through the establishment of a treatment identifier which, when analyzed by the event manager upon receipt of a subsequent event initiation request, identifies whether the respective subscriber is subject to post-call monitoring or pre-call processing and real-time monitoring.

29. (New) The system of claim 15, further comprising a messaging agent in communication with the treatment handler for the selective delivery of a message to a subscriber.

30. (New) The system of claim 29, wherein the messaging agent is comprised of a database of predetermined messages selectable by

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the treatment handler for delivery to a subscriber according to a treatment handler analysis of the respective subscriber account.

31. (New) The system of claim 30, wherein the messaging agent is adapted for incorporating data provided by the treatment handler in a selected predetermined message for delivery to a subscriber.

32. (New) The system of claim 29, wherein the messaging agent is adapted to deliver a message in a medium selected from the group consisting of text, graphics and audio.

33. (New) The system of claim 29, wherein the messaging agent is adapted to deliver a message immediately upon being instructed by the treatment handler or at a future time.

34. (New) A method of selectively employing real-time event control resources for a subscriber to a telecommunications service plan, comprising:

analyzing data characteristic of a subscriber account at a treatment handler with respect to predetermined values available thereto for determining if a subsequent subscriber-initiated event is to be subject to pre-event processing and real-time monitoring or if the subsequent subscriber-initiated event is to be subject to post-event monitoring; and

establishing a treatment identifier reflective of the treatment handler analysis.

35. (New) The method of claim 34, further comprising the steps of:

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receiving an event initiation request from a subscriber to the telecommunications service plan at an event manager; and

referring to the respective treatment identifier, by the event manager, for determining whether the subscriber event is subject to pre-event processing and real-time monitoring or if the event is subject to post-event monitoring.

36. (New) The method of claim 35, if the treatment indicator indicates to the event manager that the event is subject to pre-event processing and real-time monitoring, further comprising the step of retrieving data from a respective subscriber record maintained by a balance manager in an associated subscriber database, by the event manager, for determining if the subscriber record data is sufficient to authorize event initiation.

37. (New) The method of claim 36, further comprising the steps of:

authorizing event initiation by the event manager in response to determining the subscriber record data is sufficient; and monitoring the event in real-time subsequent to event initiation.

38. (New) The method of claim 37, further comprising the steps of:

sending event-related data to the balance manager by the event manager subsequent to event termination;
rating the event-related data by the balance manager; and
updating the respective subscriber account by the balance manager on the basis of the rated event-related data.

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39. (New) The method of claim 36, further comprising the steps of:

identifying, by the treatment handler, one of a set of predetermined messages associated with a messaging agent; and
instructing, by the treatment handler, the messaging agent to deliver the identified message.

40. (New) The method of claim 35, further comprising the step of authorizing event initiation if the treatment indicator indicates to the event manager that the event is subject to post-event monitoring.

41. (New) The method of claim 40, further comprising the steps of:

sending event-related data to the balance manager by the event manager subsequent to event termination;
rating the event-related data by the balance manager;
updating the respective subscriber account by the balance manager on the basis of the rated event-related data; and
indicating to the event manager, by the balance manager, that the respective account has been modified.

42. (New) The method of claim 34, further comprising the steps of:

receiving a payment from a subscriber at a payment portal associated with the balance manager; and

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if the subscriber is subject to pre-call processing and real-time monitoring, notifying the treatment handler of a change in the subscriber account.

43. (New) The method of claim 42, further comprising the steps of:

re-analyzing data characteristic of the subscriber account by the treatment handler for determining if a subsequent subscriber-initiated event is again to be subject to pre-event processing and real-time monitoring or if the subsequent subscriber-initiated event is to be subject to post-event monitoring; and

establishing a treatment identifier reflective of the treatment handler re-analysis.